Population of *Achatina fulica* Bowdich, 1882
in Aestivating Pockets in South Andaman

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Achatina fulica Bowdich, 1882, which is a serious pest of fruits, vegetables, ornamental plants and plantation crops, aestivates during summers (MEAD, 1961) in comparatively moist, shady places like thick hedges, near the base of banana plants, under fallen banana leaves, etc.

Population of aestivating-pockets of *Achatina* was studied during the summer of 1969 in the villages of Schoolline, Pahargaon, Calicut, Makkapahar, Brischganj, Bidenabad, Austinabad, Sippighat, Dollyganj, Garacharma, Telarabad, Bimblitan, Humphryganj, Manglutan, Mamyo and Guptapara of South Andaman in addition to the municipal area of Port Blair. These studies were again undertaken during March-April 1970, 1971, 1972 and 1973 in more villages.

The data presented in this paper relate to the March-April 1973 studies. The area occupied by each pocket and the number of aestivating snails per aestivating pocket were recorded on 3 days in each case and the results are presented in Table 1.

From the Table it can be seen that during 1973, the population of 737 aestivating pockets of *Achatina* was 51 469 snails in an area of 1069.09 m². The population was highest in Makkapahar followed by Calicut, Prothrapur, Austinabad, Brischganj, Garacharma, Pahargaon, Schoolline, Nayagaon, Shadipur and Dollyganj in descending order. The snail population in the 11 villages under study varied from 20.10 to 102.39 per m². Our observation has been that as we move away from the town, the snail population generally increases almost directly in proportion to the distance it is away from the town. Thus, the villages having low snail populations, *i. e.,* Dollyganj, Nayagaon, Shadipur and School-line are very near to the municipal limits of Port Blair, and Makkapahar, having the highest population, is farthest away from Port Blair, to the extent that during the rainy season (mid-May to about December) it is not easily accessible by road; consequently very few control measures, if any, are undertaken by the villagers alone. Thus this village remains almost beyond our reach for about 6 to 8 months each year. Sanitary conditions also deteriorate as we move from the town to the villages, and from nearer villages to more distant ones. Moreover, the villages having low snail populations are generally small and not growing many vegetables – the main food plants of the giant African snail, whereas Calicut and Makkapahar, the 2 biggest among the 11 villages studied, are the major vegetable growing areas. An additional factor which plays an important role in the high snail populations of Calicut and Makkapahar is the presence of dense forests in the vicinity of these villages which provide sufficient shade, moisture and rubbish in the form of fallen leaves and bushes and the like, where the snails can seek shelter.

SUMMARY

In 1973, population of the giant African snail in aestivating pockets in 11 villages of South Andaman was studied. A total of 737 pockets, having a total of 51 469 aestivating snails were located in an area totalling 1069.09 m². The highest average population of aestivating snails was found to be 102.39 snails per m², while the lowest was 20.10 snails per m².

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Table 1

Data of the Aestivating Pockets

S. No.	Locality	Date		Average population/sq metre	Position of population/sq metre
1.	School line	20.3.73 21.3.73 & 22.3.73	(a) 11 + 12 + 11 = 34 pockets (b) 30.20 + 29.36 + 33.08 = 92.64 sq m (c) 641 + 915 + 873 = 2429 snails	26.21	VIII
2.	Pahargaon	23.3.73 24.3.73 & 26.3.73	(a) 23 + 19 + 26 = 68 pockets (b) 41.17 + 40.89 + 38.47 = 120.53 sq m (c) 1350 + 1034 + 1426 = 3810 snails	31.61	VII
3.	Austinabad	27.3.73 28.3.73 & 29.3.73	(a) 21 + 20 + 21 = 62 pockets (b) 38.84 + 34.47 + 33.45 = 106.76 sq m (c) 1983 + 1826 + 1758 = 5567 snails	52.14	IV
4.	Prothrapur	30.3.73 31.3.73 & 2.4.73	(a) 21 + 31 + 23 = 75 pockets (b) 33.36 + 31.59 + 28.81 = 93.76 sq m (c) 1658 + 1821 + 1565 = 5044 snails	53.79	III
5.	Brischganj	3.4.73 4.4.73 & 5.4.73	(a) 26 + 24 + 20 = 70 pockets (b) 34.94 + 29.46 + 35.59 = 99.99 sq m (c) 1612 + 1817 + 1650 = 5079 snails	50.79	V
6.	Garacharma	6.4.73 7.4.73 & 9.4.73	(a) 25 + 25 + 25 = 75 pockets (b) 28.90 + 30.20 + 32.43 = 91.53 sq m (c) 1063 + 942 + 1158 = 3163 snails	34.55	VI
7.	Calicut	10.4.73 11.4.73 & 12.4.73	(a) 42 + 29 + 32 = 103 pockets (b) 45.07 + 30.76 + 44.14 = 119.97 sq m (c) 4014 + 2910 + 3442 = 10366 snails	86.40	II
8.	Dollyganj	14.4.73 16.4.73 & 25.4.73	(a) 18 + 18 + 16 = 52 pockets (b) 26.11 + 24.72 + 22.86 = 73.69 sq m (c) 602 + 510 + 370 = 1482 snails	20.10	XI
9.	Makkapahar	17.4.73 23.4.73 & 24.4.73	(a) 31 + 25 + 25 = 81 pockets (b) 33.27 + 29.27 + 37.26 = 99.80 sq m (c) 3954 + 3116 + 3149 = 10219 snails	102.39	I
10.	Shadipur	18.4.73 19.4.73 & 21.4.73	(a) 18 + 20 + 19 = 57 pockets (b) 23.32 + 30.11 + 31.50 = 84.93 sq m (c) 544 + 820 + 765 = 2129 snails	25.06	X
11.	Nayagaon	26.4.73 27.4.73 & 28.4.73	(a) 18 + 21 + 21 = 60 pockets (b) 26.95 + 28.53 + 30.01 = 85.49 sq m (c) 651 + 948 + 582 = 2181 snails	25.51	IX

(a) = Number of aestivating pockets.
(b) = Area of aestivating pockets.
(c) = Number of aestivating snails.

Literature Cited

MEAD, ALBERT RAYMOND
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